In the Claims:

1. (Previously presented) A method for detecting and quantifying first biopolymers (1) that are located in a liquid, where second biopolymers (2) which have a specific affinity to the first biopolymers (1) to be detected are bonded to the surface of a first electrode (E1), and where the first and at least one second electrode (E2) are in contact with the liquid, said method having the following steps:

contacting the liquid with the first electrode (E1),

applying a voltage and/or current across the first electrode (E1) and the second electrode (E2), and

measuring a direct change in the voltage and/or current caused by addition of the first biopolymers (1) onto the second biopolymers (2).

2. (Previously presented) A method as claimed in claim 1, where a direct-voltage signal is measured.

3. (Previously presented) A method as claimed in claim 2, where the measuring is a cyclovoltammetric measuring.

4. (Previously presented) A method as claimed in claim 1, further comprising plotting the measured current or the measured voltage against time and integrating at least one peak.

5. (Original) A method as claimed in claim 1, where an alternating-current signal is measured phase-sensitively.

6. (Original) A method as claimed in claim 5, where the alternating-current signal is superimposed on a cyclic direct-current signal.

7. (Previously presented) A method as claimed in claim 1, further comprising measuring impedance by measuring voltammetric signals at varying frequency.

8. (Previously presented) A method as claimed in claim 1, further comprising increasing the concentration of the first biopolymers (1) at the surface of the first electrode (E1) by application of a voltage and/or current prior to contacting the liquid with the first electrode (E1).

9. (Previously presented) A method as claimed in claim 8, where polarity is reversed cyclically.

10. (Previously presented) A method as claimed in claim 8, where the measuring is performed in a defined measurement solution.

11. (Previously presented) A method as claimed in claim 1, where a first end of the second biopolymer (2) is bonded to the surface of the first electrode (E1) via a covalent bond or via a linker.

12. (Previously presented) A method as claimed in claim 11, where the first electrode (E1) is made of plastic, ceramic, glass or metal.

13. (Previously presented) A method as claimed in claim 1, where the first biopolymer (1) is a single-stranded DNA or RNA which is complementary to the second biopolymer (2).